

A B S T R A C T

A DEVICE FOR MIXING TWO FLUIDS AND THE USE THEREOF FOR
COOLING A FLUID AT VERY HIGH TEMPERATURE

5

The device comprises a tubular casing (2) having a
first coupling element (5) for feeding it with a first
fluid at a first axial end, and a second coupling element
(6) for exhausting a mixture of the first fluid and a
10 second fluid at a second axial end. An internal fluid
guide duct (18a, 18b) is placed coaxially inside the
casing (2) of the mixer. The device further includes a
third coupling element (7) in a lateral position passing
through the casing (2) between the first coupling element
15 (5) and the second coupling element (6) and opening out
into a cylindrical chamber (3) of the mixer in a position
facing the outer surface of the guide duct (18a, 18b).
The guide duct (18a, 18b) may be made up of two portions
and comprises a wall having an insulating space (19a,
20 19b) formed therein, which space is put into
communication with the cylindrical chamber (3). The
device of the invention can be used in particular for
cooling supercritical water used in a process of
oxidizing effluent in supercritical water.

25

30

Translation of the title and the abstract as they were when originally filed by the
35 Applicant. No account has been taken of any changes that may have been made
subsequently by the PCT Authorities acting ex officio, e.g. under PCT Rules 37.2,
38.2, and/or 48.3.